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BOOK REVIEWS

The Pentatomoidea (Hemiptera) of Northeastern North America with Emphasis on the Fauna of Illinois. J. E. McPherson. Southern Illinois University Press. 1982. 240 pp. $30.00.

The field of hemipterology, like many others in entomology, suffers not so much from a lack of research, as from a lack of assimilation. The present book provides a compendium of biological information on our native stinkbugs and their allies. In all the book treats 120 pentatomoid species, approximately one-third of the Nearctic fauna. The geographical coverage is the northeastern quadrant of North America; those states and provinces to the north and east of Missouri.

The book is very much in the tradition of Blatchley's "Heteroptera of Eastern North America" and Hart's "Pentatomoidea of Illinois." In the years since the publication of these earlier works virtually every tribe and large genus in the superfamily has seen some revision. McPherson's book updates the nomenclature and provides keys with illustrations for the identification of species.

The books greatest value, however, is in the presentation of detailed ecological data, gleaned from an extensive but scattered literature on the subject. This information, including food plants (or prey), behavior, seasonality, distribution and parasites, is presented with ample documentation in an objective and scholarly manner. Host plants are not simply cited, but observations on abundance, whether or not the insect was actually seen feeding, and if immature stages were present, are also included. This attention to detail precludes the readers often time-consuming task of tracking down the original source. Nevertheless, a useful and voluminous bibliography has been appended.

There are some problems with the key to the genera of Pentatomini, but these problems will remain until generic distinctions have been clarified by future taxonomic work. The keys do work better than those presently available. In this reviewer's opinion at least some of the space (22 pages) devoted to Illinois county records could have been put to better use with figures. There is a complete lack of habitus drawings, and the few body outlines provided (e.g., *Rhytidilomia senilis*) only vaguely resemble the insects intended.

This book is obviously the result of painstaking research, and these minor problems do not detract from the main value of the book; an informative and up-to-date reference on the biology of the pentatomoid Hemiptera.

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Literature Cited

Blatchley, W. S. 1926. Heteroptera or True Bugs of Eastern North America with Especial Reference to the Faunas of Indiana and Florida. Nature Publ. Co., Indianapolis. 1116 pp.

Hart, C. A. 1919. The Pentatomoidea of Illinois with keys to the Nearctic genera. Illinois Natur. Hist. Surv. Bull. 13:157–223.

The American Cockroach. William J. Bell and K. G. Adiyodi, eds. Chapman and Hall, London-New York, and Methuen, New York. 1981. 529 pp. $65.00.

The Laboratory Cockroach. W. J. Bell. Chapman and Hall-Methuen. 1982. 161 pp. $13.95.

There exist 47 species of cockroaches (*Periplaneta*) and four occur in the United States, but to non-experts it will come as a surprise that none of these are endemic to America. The name of the cosmopolitan American cockroach, *P. americana,* is misleading, as this insect is of African origin. The importance of cockroaches cannot be overemphasized to entomologists. This large volume, edited by Bell and Adiyodi, provides an integrated account of the biology of *P. americana.* Eighteen authors contributed 16 chapters that are up-to-date and written with authority. The authors describe the distribution, life cycle and biologic importance, osmoregulation, excretion, fat body composition and metabolism, nervous system, neurosecretion and hormones, sense organs, rhythms, muscular activity, reproduction, pheromones, behavior, embryonic and post-embryonic development, and regeneration. The chapters give an excellent indepth review and they contain a wealth of information about nearly all aspects of interest to those working with cockroaches. Each chapter is concise and the information presented in a critical manner. The more than 1,250 references are combined at the end of the volume. A short subject index is provided. The volume is well planned and edited. It will prove quite valuable to entomology students and teachers. "The Laboratory Cockroach" nicely supplements the authoritative book, providing lab exercises on the anatomy, nutrition, circulation, metabolism, reproduction, embryogenesis, regeneration, metamorphosis and behavior. I missed the inclusion of exercises dealing with cellular and molecular aspects. The manual can be recommended highly for entomology courses.

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